

**HABITAT MANAGEMENT PLAN  
FOR THE  
ENCINAS CREEK OPEN SPACE  
BILTMORE 24-HOUR FITNESS AND  
KELLY/JRM OFFICE BUILDING PROJECTS  
CITY OF CARLSBAD, CA**

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**Habitat Management Plan**  
**Encinas Creek Open Space**  
**Biltmore 24-Hour Fitness and Kelly/JRM Office Building Projects**  
**City of Carlsbad, CA**

*Merkel & Associates, Inc.*

## **1.0 INTRODUCTION**

This Habitat Management Plan (HMP) has been prepared to guide the long-term management of the approximately 8.0-acre Encinas Creek Open Space associated with the Ascent Biltmore 24-Hour Fitness and Kelly/JRM Office Building projects located on the extension of Laurel Tree Lane in the City of Carlsbad. The open space site is located along Encinas Creek east of Aviara Parkway and south of Palomar Airport Road (Figure 1).

The impetus for the implementation of long-term open space management is derived through the City of Carlsbad Habitat Management Plan, the City's approved Habitat Conservation Plan and Natural Communities Conservation Plan (HCP/NCCP). Wetland restoration and buffer enhancement is required as conditions of state and federal wetland regulatory approvals issued jointly to the two properties for the construction of the Laurel Tree Lane crossing at Encinas Creek. These approvals require restoration of habitat, implementation of a 5-year habitat establishment maintenance program, and recordation of a conservation easement over the mitigation wetlands. No native upland habitats are to be impacted by either of the projects and as such, there are no state or federal regulatory drivers for the long-term habitat management other than compliance with the City's HCP/NCCP. For this reason, this Habitat Management Plan requirements have been developed to conform to requirements of the City's HCP/NCCP.

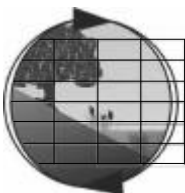
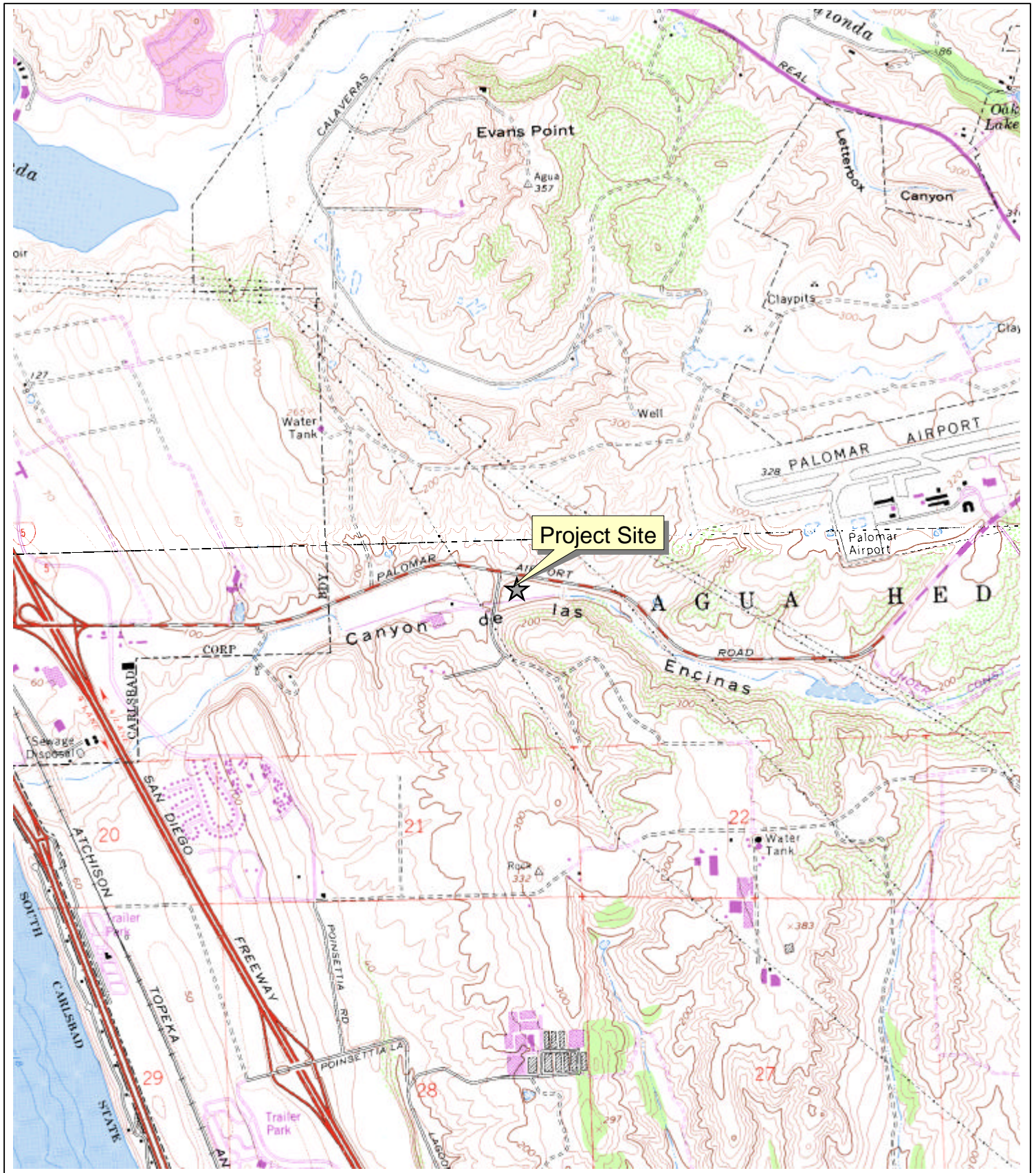
Long-term management will commence after a period of 5-years during which time the Encinas Creek riparian habitat will be enhanced, a native habitat buffer will be developed along the riparian corridor, and expanded wetland and fringing riparian habitat will be created to broaden the riparian zone. At the time of project turn-over to the Habitat Manager for implementation of long-term habitat management, it is assumed that no further restoration or enhancement activities will be required, but rather will require maintenance of the site conditions.

## **2.0 PURPOSE**

The purpose of this HMP is to maximize and maintain the wildlife habitat qualities of the preserved area within the project site. The HMP provides a framework for the management of the preserve and identifies parties responsible for carrying out its required tasks. The Habitat Manager is identified as the person/entity responsible for overseeing the management program (as defined below in Section 6.0, Administrative Structure). The Habitat Manager is in turn responsible to the City, which has authority over the preserve area pursuant to the City of Carlsbad Habitat Management Plan.

As part of the HLP, the project owners are required to establish a non-wasting endowment in favor of a non-profit conservation entity for an amount approved by the City of Carlsbad based on a Property Analysis Record (PAR) (Center for Natural Lands Management © 1998). These monies are to provide for the funding of perpetual management, maintenance, and monitoring of the site. The project PAR, prepared by Helix Community Conservancy, is included as Appendix A to this report.





N  
W E  
S  
1" = 2000'

### Project Vicinity Map

Laurel Tree Lane Public Improvements Project Buffer  
and Wetland Mitigation Site

Source: USGS 7.5' San Luis Rey and Encinitas, CA Quadrangles

**Figure 1**

This HMP is intended to establish the maintenance, monitoring, and reporting requirements for the open space and to provide the basis for development of an endowment PAR. The PAR assumes the funding of an endowment for perpetual management at the time of issuance of the Biltmore 24-Hour Fitness project grading permit. This endowment will generate interest for a period of 5 years prior to the initiation of any long-term management activities. As such, the initial PAR funding assumes a 60-month growth of the principal endowment amount.

### **3.0 DESCRIPTION OF MANAGEMENT AREA**

#### **3.1 SITE LOCATION**

The site to be managed is located in the City of Carlsbad (City) and lies within unsectioned lands, Township 12 South, Range 4 West of the San Bernardino Base and Meridian, USGS 7.5' Encinas Quadrangle (Figure 1). It occurs to the southeast of the intersection of Palomar Airport Road and Aviara Parkway. The Project site is identified as portions of Assessor's Parcel Numbers 212-040-25 (Biltmore) and 212-040-64 (Kelly/JRM) longitude 117 17' 54"W and latitude 33 07' 22"N. The legal description of the managed lands is provided in Appendix B along with a boundary map of the management area.

#### **3.2 HMA DESCRIPTION**

The management area consists of an approximately 8.0-acre site extending along Encinas Creek and supporting native upland and wetland habitats. The site is a linear habitat corridor with an average width of 180 feet and is approximately 2000 feet long. At present, the site is bounded on the north, south, and east by vacant lands and is bounded on the west by Aviara Parkway. At the time the long-term management activities are initiated, it is anticipated that lands to the north of the site will be built out as commercial development including an office building on the Kelly/JRM parcel and a 24-Hour Fitness center on the Biltmore parcel. Since an existing development pad exists for office uses at the east end of the open space, this area may support development in the future. Adjacent lands along approximately 1,500 feet of the southern boundary east of Laurel Tree Lane support steep slopes and native chaparral habitat that occur within the City's HMP preserve. These areas are anticipated to fall under future management of the Helix Community Conservancy or another conservation management organization. Approximately 450 feet of the western end of the open space is anticipated to be bounded on the south side by an additional 80 foot to 100-foot open space buffer that would be required under the HMP with the approval of any future development.

In order to effectively manage the site, a significant amount of restoration work is required within the riparian areas of the property and on the alluvial bench located to the north of the creek. Upland chaparral habitat on the southern edge of the site are generally in good condition and require minimal invasive species removal prior to implementation of long-term management. Currently the majority of the riparian and valley floor area to be preserved contains concrete rubble and other debris. This area also supports a high degree of non-native species predominated by pampas grass and castor bean.

To address the degraded conditions of the creek and to mitigate impacts of the Laurel Tree Lane crossing, the proposed mitigation will include the creation of southern willow scrub habitat and an adjacent coastal sage scrub buffer on the Biltmore property, enhancement of the existing disturbed southern willow scrub through extensive removal of invasive and non-native plant species, creation of southern willow scrub and freshwater marsh and enhancement of existing degraded wetland



habitats on the Kelly/JRM property through minor grading, removal of non-native plants, and installation of southern willow scrub and freshwater marsh vegetation (Dudek 2004). The described work is presently being undertaken in accordance with the Final Wetland Mitigation/Buffer Plan (approved 12/3/05, as amended) as provided in Appendix C. This work will result in the removal of invasive exotic weeds, expansion of wetlands and riparian habitats, and the restoration of native upland sage scrub habitat within the buffer area. The work will also include the construction of an 8-foot wide pedestrian trail, the construction of a trail fence, and the construction of bio-swales to pre-treat stormwater prior to discharge to Encinas Creek.

Following the completion of work illustrated in Appendix C, a 5-year establishment period will be initiated during which time, maintenance and monitoring will be conducted to foster development of the desired habitats. This work will be undertaken by Merkel & Associates (M&A) prior to and outside of the long-term habitat management activities described in this document.

### 3.3 HABITATS WITHIN THE HMA

Once restored the site will support six habitats including Diegan coastal sage scrub, southern mixed chaparral, southern cottonwood-willow riparian forest, floodplain riparian scrub, southern willow scrub, and freshwater marsh (Table 1, Figure 2).

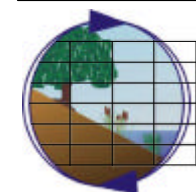
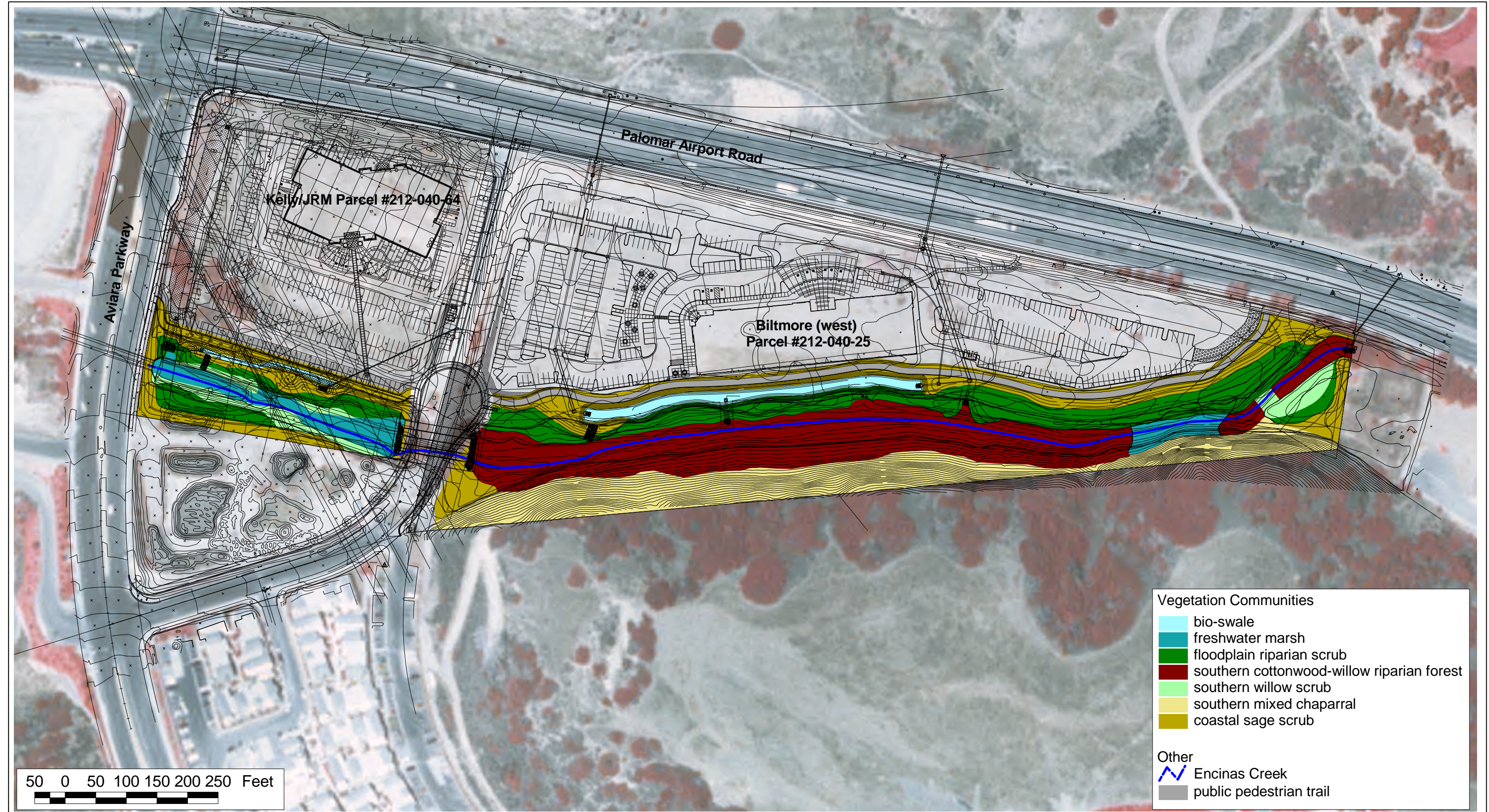
Table 1. Summary of Vegetation Communities within the Habitat Management Area

| Habitats                                   | Preserved in Open Space |
|--|-------------------------|
| Diegan Coastal Sage Scrub                  | 1.6                     |
| Southern Mixed Chaparral                   | 1.5                     |
| Southern Cottonwood-Willow Riparian Forest | 2.0                     |
| Floodplain Riparian Scrub                  | 1.5                     |
| Southern Willow Scrub                      | 0.3                     |
| Freshwater Marsh                           | 0.4                     |
| <b>Other Features in the HMA</b>           |                         |
| Bio-Swale                                  | 0.2                     |
| Public Pedestrian Trail                    | 0.5                     |
| <b>TOTAL</b>                               | <b>8.0</b>              |

#### 3.3.1 Diegan Coastal Sage Scrub

This vegetation community will occur as a buffer habitat to riparian communities. Diegan coastal sage scrub is to be located between the pedestrian trail and the riparian habitat and on slopes surrounding restored wetlands. The Diegan coastal sage scrub will be dominated by coyote brush (*Baccharis pilularis*), flat-top buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and coastal goldenbush (*Isocoma menziesii*). Other species present will include those such as, black sage (*Salvia mellifera*), San Diego red monkeyflower (*Mimulus aurantiacus*), coastal deerweed (*Lotus scoparius*), and redberry (*Rhamnus crocea*).





**Biological Resources Map**  
Encinas Creek Open Space Biltmore 24 Hour Fitness  
and Kelly/JRM Office Building Projects

**Figure 2**



### **3.3.2 Southern Mixed Chaparral**

Southern mixed chaparral occurs on the slope to the south of the mitigation area on the Kelly/JRM site, and is currently designated as open space. This habitat type is characterized by relatively low-growing species with occasional patches of bare, chalky soil. Dominant species include those such as chamise (*Adenostoma fasciculatum*), toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos glandulosa*), and Mojave yucca (*Yucca schidigera*).

### **3.3.3 Southern Cottonwood-Willow Riparian Forest**

Southern cottonwood-willow Riparian Forest is currently found along the Kelly/JRM parcel and will be preserved in place. Dominant species recognized within this habitat type include western sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), and Goodding's black willow (*Salix gooddingii*). In the future, it is expected that Mugwort (*Artemisia douglasiana*), and other species of willow will inhabit this area as understory species replacing the iceplant, pampas grass, and Cape ivy being removed through the enhancement program.

### **3.3.4 Floodplain Riparian Scrub**

Floodplain riparian scrub will occur primarily along the northern portion of the site. This vegetation community supports sandbar willow (*Salix exigua*), mule fat, and arroyo willow, as well as understory species such as San Diego marsh elder (*Iva hayesiana*), marsh fleabane (*Pluchea odorata*) and beardless wild rye (*Lemus triticoides*).

### **3.3.5 Southern Willow Scrub**

Southern willow scrub is found along this perennial drainage along the lower banks of the riparian corridor. This habitat is dominated by arroyo willow (*Salix lasiolepis*), which typically varies from 10 to 25 feet in height. Secondary canopy species include trees such as Goodding's black willow (*Salix gooddingii*) and lance-leaf willow (*Salix lucida* ssp. *lasiandra*). Understory species include mule fat (*Baccharis salicifolia*), western ragweed (*Ambrosia psilostachya*), great marsh evening primrose (*Oenothera elata* ssp. *hirsutissima*), and tall flatsedge (*Cyperus eragrostis*).

### **3.3.6 Freshwater Marsh**

Freshwater marsh vegetation is currently established at several locations along the Encinas Creek flowline. Characteristic species of this area include those such as narrow-leaved cattail (*Typha angustifolia*), prairie bulrush (*Scirpus robustus*), and sand spikerush (*Eleocharis montevidensis*).

## **3.4 SENSITIVE AND HMP COVERED SPECIES**

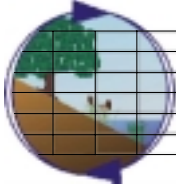
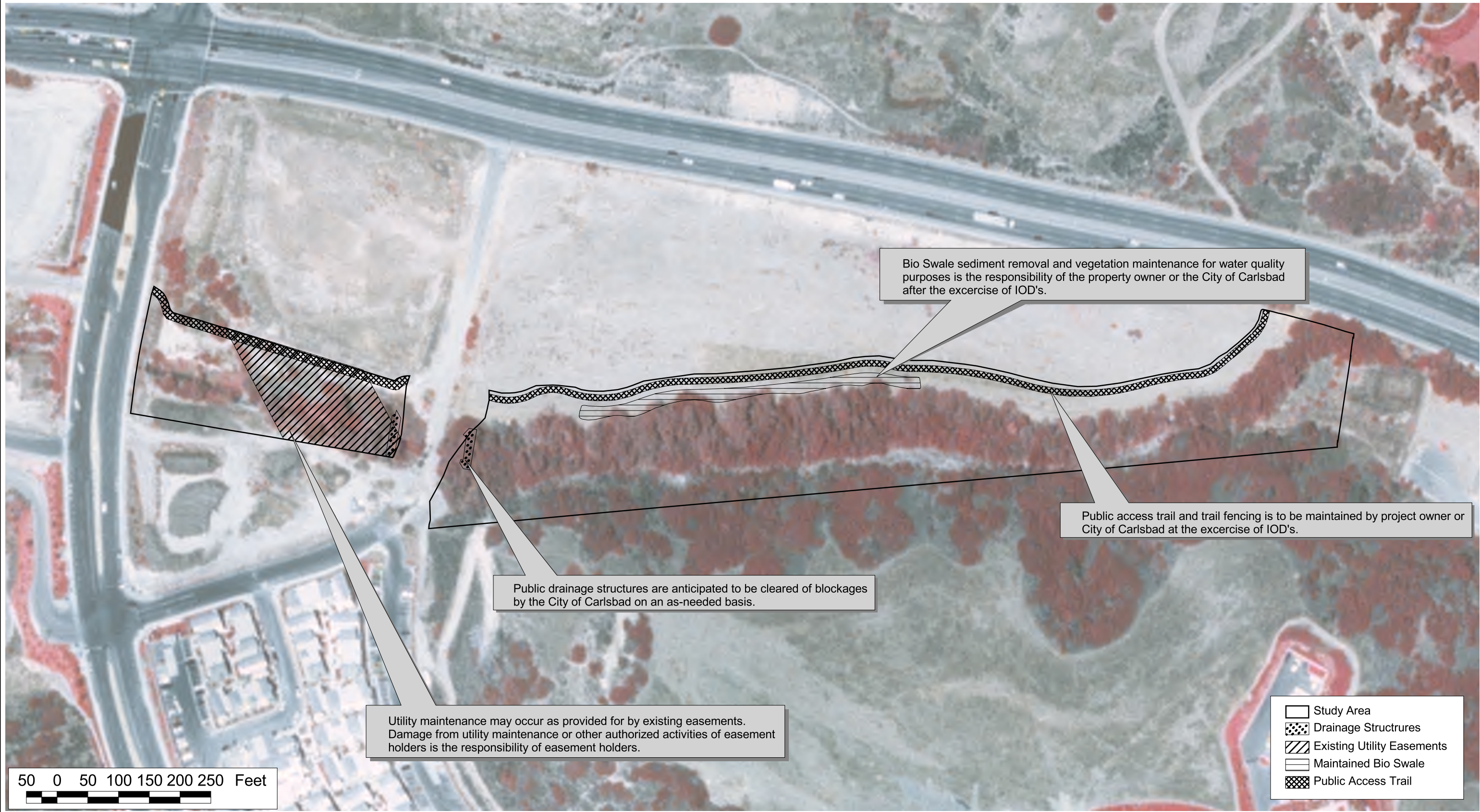
There are no sensitive or covered species within the open space to be managed. There is a potential for future occupancy of the property by least Bell's vireo (*Vireo belli pusilus*), a state and federally listed endangered species and a species covered under the Carlsbad HMP. This species is known to occur in downstream areas of Encinas Creek and with restoration of the on-site habitats and continued expansion of vireo populations in the region, the future onsite occurrence of this species would not be unexpected.

### **3.5 EXISTING OPEN SPACE OBLIGATIONS**

The on-site open space is intended to be managed as an element of the City of Carlsbad's HMP. However, it should be recognized that the open space area serves multiple uses that must be achieved in conjunction with the habitat management goals for the site. While these other purposes are largely beyond the scope of the Habitat Manager's responsibility, they are documented here to ensure that management activities conducted within the open space accommodate and do not conflict with other open space purposes. Existing obligations are outlined as follows:

- The open space area incorporates wetland mitigation required in satisfaction of state and federal wetland regulatory approvals for the construction of the Laurel Tree Lane crossing. These approvals include: Clean Water Act, section 404 permit #200300033-KJC; CWA section 401 certification #02C-047; Streambed Alteration Agreement #R5-2002-0128. The approvals require the creation and enhancement of wetland habitats along Encinas Creek. The required creation and enhancement work is incorporated in the work presently being performed and work will be completed prior to initiation of long-term management activities under this HMP. The specific wetland mitigation areas required by the regulatory approvals are illustrated in Figure 3. These areas must be protected as wetland habitats and may not be filled for any future purpose.
- Permanent storm water detention basin(s) are to be installed within a portion of the northern portion of the open space to control pollutant discharges in accordance with National Pollutant Discharge Elimination System (NPDES) best management practices. On the Biltmore parcel, an approximately 0.2 acre basin is to be constructed to collect and filter water runoff from the Palomar Airport Road public right-of-way, the Carlsbad City Golf Course, and the Biltmore 24-Hour Fitness project before discharging to Encinas Creek (Figure 3). This basin will collect and treat waters that presently flow directly to Encinas Creek. The Biltmore bio-swale is a maintained basin that may require sediment removal, vegetation thinning, and inlet and outlet structure clearing. All sediment and vegetation removal maintenance within this basin is to be performed by hand and will be undertaken by the property owner or the City of Carlsbad after acceptance of IODs for the facility. A second bio-swale basin of approximately 0.1 acre is to be developed on the Kelly/JRM parcel. This basin is to serve as a storm flow retention basin and is not proposed to be maintained through vegetation harvesting or sediment removal. Both bio-swales are to be vegetated with native vegetation on the basin floor and basin side slopes. From the Habitat Management Plan standpoint, these basins must be retained in the open space and shall not be reduced in scale or converted to differing habitat conditions than those indicated in Appendix C. The Habitat Manager shall be responsible for trash removal, exotic species control, and other habitat based management activities, but shall not be responsible for maintaining hydrologic or water quality functionality of these facilities.
- The Biltmore and Kelly/JRM projects are required to install a pedestrian trail and fence along the northernmost 15 feet of the open space (Figure 3). This trail shall be kept accessible to the public and will be maintained by the property owners or the City upon acceptance of IODs for the trail facilities. The Habitat Manager shall be responsible for control of exotic invasive species and removal of trash along this trail but shall not be responsible for trail maintenance involving repairs of the trail surface or fencing.





**Habitat Management Exclusions**  
Encinas Creek Open Space Biltmore 24 Hour Fitness  
and Kelly/JRM Office Building Projects

**Figure 3**



- Encinas Creek carries significant flows during storm events and is a drainage that is subject to maintenance by the City of Carlsbad. The widened creek profile that is presently being constructed to expand the riparian habitat through the open space would be expected to limit or eliminate any maintenance along the creek except at drainage structures at Laurel Tree Lane and Aviara Parkway (Figure 3). At these locations, it is expected that debris and sediment removal may occur from the inlet and outlet aprons and within culverts on an as-needed basis. Removal of blockages from culverts is not the responsibility of the Habitat Manager, however the Habitat Manager shall notify the City of Carlsbad when blockages of drainage structures are noted.
- SDG&E maintains a transmission corridor easement through the western portion of the open space on the Kelly/JRM parcel. The Carlsbad Municipal Water District maintains a parallel easement west of the SDG&E transmission corridor. The SDG&E easement contains overhead transmission lines and no underground utilities. The Carlsbad MWD easement contains an abandoned reclaimed water line that has been relocated into Aviara Parkway. None of the pre-existing easement rights held by either SDG&E or the Carlsbad MWD have been abandoned or vacated within the open space. As such, future maintenance by SDG&E may occur within the transmission corridor and future projects may be proposed and approved within these easements. The restoration of habitat damaged by utility maintenance or new projects is the responsibility of the easement holder and not the Habitat Manager. However, once impacted habitat is restored, the long-term management of the habitat area will revert to the Habitat Manager.

#### **4.0 CONSERVATION ELEMENTS**

The following elements are to occur as part of the preservation mechanism for the site:

- Conserve the approximate 8.0-acre Site through recordation of a biological conservation easement to the City of Carlsbad. The easement will allow for the restoration and the creation of wetlands, maintenance of habitat, and implementation of management activities necessary to conduct the work including in this habitat management plan.
- The project owner will establish a non-wasting endowment in favor of a non-profit conservation entity to be approved by the City of Carlsbad. The endowment shall be calculated based on a Property Analysis Record (PAR) (Center for Natural Lands Management © 1998) or similar cost estimation method to secure the ongoing funding for the perpetual management, maintenance, and monitoring of the Site.
- The project owner will submit a habitat management plan including a description of perpetual management, maintenance, and monitoring actions and the PAR or other cost estimation results for the non-wasting endowment to the City of Carlsbad.
- Following the completion of a 5-year habitat establishment period associated with the wetland mitigation and buffer enhancements conducted in conformance with Appendix C, the open space management shall be turned over to the Habitat Manager for perpetual management, maintenance, and monitoring in accordance with this Habitat Management Plan.



## **5.0 ADMINISTRATIVE STRUCTURE**

### **5.1 ADMINISTRATION**

The project owner shall retain an individual or organization acceptable to the City to serve as Habitat Manager. If the entity hired is an organization, the person(s) actively managing the open space must satisfy the criteria for a Habitat Manager (as described below), and a Project Manager must be designated.

The City shall designate one of its staff members as the HMP Administrator. The Habitat Manager (or Project Manager, if applicable) shall report directly to the HMP Administrator on all issues, concerns, and questions, unless otherwise directed in writing by the HMP Administrator.

The following organizations and individuals will be involved in the fulfillment of this HMP:

- Through the Planning Department, the City of Carlsbad has responsibility for the Plan. The City may transfer responsibility to a different department, such as the Department of Community Services, if deemed necessary.
- The Habitat Manager will be responsible for the implementation of the HMP and will carry out the HMP's requirements and objectives.

### **5.2 QUALIFICATIONS FOR THE HABITAT MANAGER**

The City and project owner shall jointly approve the selection of a Habitat Manager. The qualifications of the Habitat Manager must meet the following criteria:

- Possession of a B.S. or B.A. degree in wildlife management, natural resources, ecology, zoology, botany, biology, or similar degree.
- A minimum of two years experience in field biology in southern California (preferably San Diego County).
- Demonstrated experience in similar projects, or in projects requiring similar skills.
- Experience in working with community groups.

## **6.0 RESPONSIBILITY**

### **6.1 LAND CONVEYANCE**

Prior to issuance of a grading permit for the Biltmore 24-Hour Fitness project, the project owner will offer to dedicate a conservation easement in favor of the City of Carlsbad over all designated open space areas on the Biltmore parcel. The City may transfer the easement to an entity selected by the City.

### **6.2 MANAGEMENT RESPONSIBILITIES**

The project applicant shall complete the following project requirements under the direction of the City:

- Establish a Contract with a Habitat Manager approved by the City.
- Supply the Habitat Manager with copies of all reports prepared for the project area, as appropriate (i.e., reports containing data regarding sensitive resource locations).
- Perform all open space conveyances (as noted above) at the designated times.

The Habitat Manager's primary responsibility will be to maintain the integrity of all preserved and restored habitats. In order to fulfill that responsibility, the Habitat Manager shall:

- Be an advocate of the preserved open space and its protection.
- Be familiar with this HMP, its appendices, and supporting documentation.
- Be responsible for all points noted in this HMP as being within his/her responsibility or judgment, as discussed in applicable sections of this document.
- Maintain all documents transferred by the project applicant (as previously noted) and be knowledgeable about the resources addressed in these reports.
- Document all field visits, and notify the HMP Administrator in a timely manner of all concerns, problems and suggested solutions.
- Coordinate with the habitat managers of adjacent properties on management practices and tasks related to preservation and maintenance of the subregional open space system. Specifically, this will include activities such as the removal of exotic and pest species, and ensuring compatibility with the overall open space management plan to be prepared for the City as part of the MHCP.

### **6.3 MAINTENANCE ACTIVITIES EXCLUSIONS**

Within the approximately 8.0-acre management area are four facilities for which parties other than the habitat manager shall undertake primary maintenance responsibility. These include: 1) a 0.5-acre public pedestrian trail extending across both parcels; 2) a 0.2-acre bio-swale located on the Biltmore parcel; 3) culvert aprons at Aviara Parkway and Laurel Tree Lane, and; 4) an SDG&E transmission corridor overhead line and support poles (Figure 3).

The pedestrian trail and the bioswale are to be maintained by the private developments until such time as the City accepts Irrevocable Offers to Dedicate (IOD) the public facilities at which time the maintenance obligations would transfer to the City. Maintenance of the trail is anticipated to include occasional replacement of trail base and regrading of the surface. Maintenance will also include repairs and replacement of trail fencing and trail edge boards. The City shall maintain drainage structure aprons along Encinas Creek as necessary to avoid blockage of flows along the creek. Drainage structure maintenance is anticipated to include the removal of debris and sediment at the culvert inlets. This work is anticipated to be limited to the rip-rap aprons and culvert interiors and would not be expected to extend elsewhere. Transmission facilities are anticipated to be maintained by SDG&E. This maintenance is expected to include insulator cleaning, pole replacement or repairs, and potential reconductor work within the existing utility easement. The single tower structure located within the managed area is located adjacent to the public trail and within 40 feet of proposed development parking. As such, regular maintenance of this facility is not expected to result in adverse impacts to the habitat area. In the event that SDG&E conducts work that results in habitat disturbance, SDG&E will be responsible for restoration in accordance with its HCP/NCCP Subregional Plan.



While primary facility maintenance for public improvements and utility easements rests outside of the obligations of the habitat manager, it is the responsibility of the habitat manager to manage the lands occupied by these facilities for habitat values. This requires the habitat manager to control weeds, remove trash, and correct erosion damage as may be necessary to sustain habitat values.

## 7.0 LONG-TERM MANAGEMENT SPECIFICATIONS

The planned open space area is intended to serve as a habitat preserve and as such is not compatible with many activities. Activities that will be specifically prohibited include grazing, hunting, fishing, off-road vehicle use, dumping, construction, vegetation clearing except as provided for at drainage structures and within water quality basins, and gravel/soil removal. The exception to this prohibition includes the implementation of any approved management measures. Establishment of the preserve will not have any effect upon existing utility easements. Long-term management tasks will commence immediately and without interruption following the successful implementation and 5-year establishment period for restoration plant materials. Table 2 summarizes the schedule for implementation of long-term management tasks.

Table 2. Long-term Management Tasks Implementation Schedule

| Task  | Approximate Implementation Date           |
|---|---|
| Baseline inventory for long-term management | Summer 2011                               |
| Site monitoring                             | Quarterly beginning Summer 2011           |
| Exotic weed control/Erosion repairs         | At least 2 times annually (Spring/Summer) |
| Annual reports                              | December (annually)                       |
| Trash removal                               | As-needed during quarterly monitoring     |

### 7.1 HABITAT MONITORING

Maintaining the health and diversity of the habitat contained within the open space is the basis for successful management of the preserved open space area. To facilitate the Habitat Manager in prioritizing management tasks and to provide information to the City regarding the overall state of the open space area, the Habitat Manager will verify the open space habitat types and conditions on an annual basis and report findings to the City for purposes of tracking the overall status of the Carlsbad preserve system.

#### 7.1.1 Baseline Inventory

The quantity and quality of the habitat present within the open space area will be documented during the first year of active management (2011). This information will be used as a baseline, or starting point, to measure changes in habitat resulting from both natural and man-made causes as well as to evaluate the success of the long-term management effort in following years.

#### Inventory Methods

The long-term Habitat Manager and a restoration biologist with M&A, serving as the project biologists responsible for the implementation of the 5-year establishment maintenance and monitoring program, will make a field visit to inspect the habitat conditions at the end of the establishment phase. During this meeting, M&A staff will note any management issues and transfer

any information that will aid the Habitat Manager in long-term management of the site. M&A will provide the Habitat Manager with GIS-based vegetation maps showing site conditions at the time of transfer. This map will be prepared for the final report of the 5-year establishment period. Based on this mapping, a table summarizing the total acreage of all existing habitat types will be produced. A one-day biological field inspection by the Habitat Manager will be used to verify floral and faunal composition of the habitat and to note any covered species. In addition, a complete list of all species observed (either directly or indirectly by sign [e.g., scat, tracks, etc.]) during the field inspection shall also be produced. The locations of any sensitive plant or animal species will be noted on the vegetation map. The Habitat Manager will maintain digital mapping and survey records after this transfer of management responsibility.

### **Schedule**

The baseline inventory will be conducted once during the summer of the first year of active management.

#### ***7.1.2 Tracking Changes***

Habitat types can change over time due to natural processes (e.g., fire, flood, biological succession). In addition, the open space area is also susceptible to indirect impacts from adjacent development, particularly along the urban/wildlife margins. Changes within the open space area may affect the functions and values provided by the existing habitat; therefore, changes in habitat are important to monitor over time. Information obtained from regularly tracking changes in the habitat within the open space area will assist the Habitat Manager in determining and prioritizing future management actions. As the open space does not presently support any listed or covered species, monitoring that is specific to these species is not proposed for the long-term management period. However, during the course of quarterly inspections, if sensitive or otherwise covered species are detected, the presence and status of these species on site will be noted and considered in future management activities.

### **Methods**

The open space area will be visually inspected for changes during regular maintenance (i.e., quarterly monitoring, biennial weed control) and annual biological survey activities conducted in the early summer of each year. If substantial changes are noted, the area will be monitored, and remedial measures including additional weeding and hand seeding will be implemented as noted below until the site stabilizes, as discussed in Section 8.3, Control of Exotic Species.

### **Schedule**

Annual biological survey reviews will be performed in the early summer of each monitoring year. The vegetation and sensitive species maps will be updated every five years, with the updated maps to be submitted to the City of Carlsbad with a recurrent 5-year status report indicating the status of the open space and providing a map of the site, a map of changed habitat conditions, and a table documenting baseline and current habitat areas. This report will also summarize any occurrence of covered or sensitive species within the open space.

### **7.1.3 Site Maintenance Monitoring**

Monitoring of the site is needed to ensure that undesirable access is being controlled, weeds are not becoming a significant issue, debris and trash dumping are not occurring to a significant amount, and the general condition of the open space is being maintained.

#### **Methods**

The site shall be monitored by inspecting the open space for invasive exotic species infestations, erosion, unauthorized access points, illegal dumping, and other unauthorized activities. Inspection shall occur by walking the site and viewing the habitat area from multiple vantage points. Given the small size of the site and the presence of the public access trail, it is anticipated that regular quarterly site reviews will require approximately two hours on site with each visit. During the site reviews, prescriptions for management activities will be written to direct maintenance. For minor maintenance, such as removal of a small amount of trash or a recent occurrence of invasive plants, maintenance activities will occur coincident with the monitoring and will be documented. For more substantial maintenance needs, follow-up visits may be required to implement maintenance actions.

#### **Schedule**

Monitoring shall occur at least once every quarter during each management year.

## **7.2 COVERED SPECIES MONITORING**

Monitoring of sensitive species located within the preserve has two purposes: (1) to identify short-term threats to species persistence and (2) to identify long-term trends that may suggest that a population is declining. Adaptive management measures may be required to intervene when either natural or man-made disturbances or effects appear to be negatively influencing the potential for sensitive species to occur on-site.

Because no sensitive species or covered species under the Carlsbad HMP are present within the open space at this time, no covered species monitoring is proposed under this management plan.

## **7.3 CONTROL OF EXOTIC SPECIES**

The introduction of exotic plant and animal species through urban edge effects can result in degradation of native habitats and adverse effects on associated native wildlife. The Habitat Manager will implement the following measures to control the introduction of exotic plants and animals in the preserve.

### **7.3.1 Exotic Plant Control**

The control of exotic plant species will include coordination with the habitat managers in adjacent open space preserves to increase the efficiency of program implementation (as described above in Section 7.2, Management). A list of exotic pest plant species of local concern found on the site is provided below in Table 3. While this list identifies the species most likely to require control, it is not exhaustive. Other species which pose a threat to the habitat integrity of the open space shall also be removed by the Habitat Manager if they are found to occur on site.



Table 3. Exotic Pest Plant Species to be a Control Issue During the Long-term Site Management

| SCIENTIFIC NAME              | COMMON NAME         | HABITAT MOST AFFECTED |
|------------------------------|---------------------|-----------------------|
| <i>Cortaderia selloana</i>   | pampas grass        | wetland               |
| <i>Arundo donax</i>          | giant reed          | wetland               |
| <i>Brassica nigra</i>        | black mustard       | upland                |
| <i>Carpobrotus edulis</i>    | hottentot fig       | upland/wetland        |
| <i>Washingtonia filifera</i> | California fan palm | Wetland               |
| <i>Ricinus communis</i>      | castor-bean         | upland/wetland        |

### **Methods**

Control of exotic plant species will include the three principal steps outlined below:

1. Removal of Existing Exotic Plants – The Habitat Manager is responsible for removal of existing exotic plants to the extent that they are identified as a likely issue for future preserve management. Weeds should be removed by hand or controlled with the proper herbicides.

The Habitat Manager will determine if/when herbicides are required in the preserve to control weed species. Permitting and compliance with all applicable federal and state laws and regulations will be the responsibility of the Habitat Manager. If herbicide is deemed necessary, its use should be kept to an absolute minimum and these general guidelines should be followed:

- All herbicide use will involve chemicals that have a short duration and are biodegradable.
- The application of herbicide should be minimized to the extent possible.
- Applications should be focused on target species. Backpack sprayers should be used.

To maximize success, all herbicide applications should take place during the appropriate time of year and be applied in the manner appropriate for the target plants.

2. Prevention/Reduction of Exotic Plant Introduction – A prohibition against the use of invasive species has been incorporated into the Biltmore and Kelly/JRM project approvals. The use of plants identified on the 1999 California Invasive Plant Council (Cal-IPC) List A or B as well as those identified in Table 12 of Section F of the HMP are precluded within project landscaping. If invasive species are noted in the adjacent landscaping, the Habitat Manager shall bring the issue to the attention of the project owner's for correction. In the event that corrections are not made in a timely fashion, the Habitat Manager shall bring the issue up with the City for code compliance enforcement.
3. Removal of Introduced Exotic Plants – The Habitat Manager will be responsible for removing populations of all invasive species from the preserve as soon as feasible after their discovery, per the methods described above. If non-native plant cover exceeds 5 percent over baseline amounts, contingency funds may be used to increase weed control measures and/or augment the native seed bank. A zero-tolerance policy for all California Invasive Plant Council (Cal-IPC) list A species should be implemented for the site to prevent their colonization or recruitment. All Cal-IPC list A species identified on-site shall be removed as soon as they are located.

It is anticipated that use of a native seed mix shall be adequate for restoration of disturbed habitat areas and areas disturbed from large-scale weed removal. The seed mix shall be determined by the Habitat Manager based on slope, aspect, and existing native plant species occurring in habitat immediately adjacent to the restoration area. Seed used shall be collected from on-site sources to ensure genetic integrity of the habitat. Seed shall be planted in the late fall (November through December) to take advantage of winter rains. Supplemental irrigation should not be used. If the Habitat Manager determines that container stock would be appropriate for certain species (i.e., laurel sumac), material shall be acquired from a licensed commercial nursery and materials shall be derived from native stock.

### **Schedule**

Removal of exotic plant species will be a focus of the Habitat Manager's duties during the spring and early summer months when most weed species are growing. Weeding should be scheduled between March and June and on an as-needed basis for the remainder of the year. The Habitat Manager will modify this schedule to accommodate annual fluctuations in weed growth. A minimum of two weed removal days shall be conducted annually.

#### ***7.3.2 Domestic Pets***

The Habitat Manager will implement the following steps in an ongoing manner to control the effects of domestic pets on wildlife within the preserve:

- The public access trail will be posted with signage that indicates that pets are not to be off leash. Signage will be posted with applicable code sections such that leash law provisions may be enforced.
- The Habitat Manager will report persistent and chronic problems related to uncontrolled pets in the preserve area to the City and ultimately the North County Humane Society & SPCA, which provides animal control services for the City.

### **7.4 ANNUAL MANAGEMENT REPORTS**

A letter report summarizing the status of the open space preserve on site, the results of the quarterly surveys, and all major actions taken since the previous annual report will be provided to the City each year. This letter report will include information on the perceived overall health of the various habitats present within the open space area, any changes to the perceived health or distribution of sensitive plant and animal species observed (provided on a map), any observed changes resulting from natural or man-made causes, any management issues/tasks addressed during the last year, and tasks identified for the next year. This report also will compare the most recent data with that collected in previous years. If any habitat type or sensitive species is declining, the report will outline a plan for its recovery. The annual report will include the most up-to-date vegetation and sensitive species maps. Such maps also will be kept in digital format and updated per surveys conducted by the Habitat Manager.

## **7.5 PUBLIC AWARENESS**

It is important that the community accept the open space preserve as a valuable amenity and important resource. Steps will be taken to encourage participation by local residents and members of the community in the stewardship of the open space area. It is a goal of this plan that members of the community take pride in the maintenance and protection of the open space. The community can help police the open space area and assist the Habitat Manager, who cannot be present 24 hours a day, in preventing vandalism and unauthorized activities from occurring.

Interpretive signs will be installed at entry points to the public access trail to help educate the public about the ecology of the area, purpose of the open space preserve, and species present, as well as the need for preservation of the area. Other important information will be included on signage including prohibitions within the open space including motorized vehicles, littering, off-trail activities, fires, and off-leash pets. In addition, an emergency contact number and e-mail address will be provided for the Habitat Manager to report any management concerns.

The Habitat Manager will install interpretive signage at the beginning of long-term habitat management and replace them when needed.

## **7.6 ADDITIONAL MANAGEMENT CONCERNS**

### ***7.6.1 Trash Removal***

The Habitat Manager will be responsible for general removal of trash from the open space area during quarterly visits.

### ***7.6.2 Squatting***

Illegal squatting is often a problem within open space areas in the City. The Habitat Manager will regularly survey the site for encampments and report them to the Carlsbad Police Department.

### ***7.6.3 Hunting/Firearms***

The purpose of the open space area is to create a habitat preserve. Hunting and non-authorized use of firearms will not be permitted within the preserve as they are counter-productive to the goals of the preserve. The Habitat Manager will include this policy on the signs located at the public trail access points to advise trail users of this policy and warn them of legal consequences. If unauthorized or illegal activity is observed, the Habitat Manager shall report the offender(s) to the Carlsbad Police Department.

### ***7.6.4 Poaching/Collecting***

Removal of any plants, animals, rocks, minerals, or other natural resources will be prohibited within the preserve. This policy shall be noted on signs located near the entry points to the public access trail to advise potential visitors of this policy and warn users of legal consequences. Anyone found removing natural resources would be informed in a non-confrontational manner that these activities are illegal. The Habitat Manager should maintain a log of all incidences of collecting within the preserve. Should a situation turn confrontational or if a request to discontinue illegal activities is ignored, the Habitat Manager shall report the offender(s) to the Carlsbad Police Department.



At his/her discretion, the Habitat Manager may allow seed collection and plant cuttings to be used as part of revegetation efforts within the preserve. Any such activities will take place under the direct supervision of the Habitat Manager. The amount of collected plant materials will be limited to provide only what is absolutely necessary to ensure successful revegetation and to avoid adverse effects to on-site resources.

#### ***7.6.5 Fencing***

The project applicant shall provide a peeler core trail fence along the south side of the public access trail to separate the pedestrian trail from the managed habitat lands. This fence will be maintained by the properties until such time as the City accepts IODs for the trail facility. At that time, maintenance of the fence will transfer to the City of Carlsbad. Additionally, permanent signs will be installed at strategic locations throughout the site to inform the public that the area is a natural open space to be maintained for habitat values.

## **8.0 REFERENCES**

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- Merkel & Associates, Inc. January 2006. Draft Habitat Management Plan for the Combined Westminster and Vista De La Valle/T.E.T. Mitigation Sites.
- Oberbauer, Thomas. 1996. Terrestrial Vegetation Communities in San Diego County, Based on Holland's Descriptions. County of San Diego, Department of Planning and Land Use. Unpublished list. Revised February 1996. 7 pp.

## **Appendix A.**

### **Property Analysis Record Encinas Creek Open Space Biltmore 24-Hour Fitness and Kelly/JRM Office Building Projects**



## **Appendix B.**

### **Legal Description and Boundary Map for Managed Lands**

## **Appendix C.**

**Final Wetland Mitigation/Buffer Plan  
11-15-05  
(approved 12/3/05)**